

U.S. Patent Application Serial No. 09/870,464
Request for Reconsideration dated August 6, 2003
Response to Office Action of May 14, 2003

REMARKS

Claims 1 - 5 remaining in the present application. No amendments to the claims have been made. No new matter has been added. It is respectfully submitted that this response is fully responsive to the Office Action dated May 14, 2003.

Allowable Subject Matter:

Applicants gratefully appreciate the indication in item 5 of the action that claims 3, 4, 5/3 and 5/4 would be allowable if amended to include the features of their respective base and intervening claims. However, for at least the reasons outlined below, it is respectfully submitted that all of claims 1 - 5 are allowable.

As to the Merits:

As to the merits of this case, the Examiner sets for the following rejections:

1) claims 1 and 5/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over either the Applicant's Statement or ASME (Article AK provided by Applicants); and

2) claims 2 and 5/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Applicant's Statement or ASME (Article AK provided by Applicants) as applied to claim 1 above, and further in-view of Iijima et al. (U.S. Patent No. 5,864,238) or Elsing (U.S. Patent No. 6,134,976).

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Each of these rejections are respectfully traversed.

Claim 1 calls for a deflection detecting means provided on a base within a machining area for detecting a deflection of an outer circumferential surface of a test tool attached to the spindle when the test tool is rotated about an axis thereof; and run-out diagnosing means for conducting a diagnosis on run-out of the spindle by calculating an amount of the run-out of the spindle on the basis of the deflection detected by the deflection detecting means and comparing the calculated run-out amount with a predetermined tolerance.

The last paragraph of page 1 of the present specification relied upon by the Examiner recites:

A typical method for the pre-delivery inspection is such that a cylindrical test tool having an outer circumferential surface finished with a high level of accuracy or a test tool having a spherical ball fixed to a shaft thereof is fitted in a taper hole of the spindle and rotated about an axis thereof, and the amount of a deflection of the outer circumferential surface of the test tool is measured, on the basis of which the run-out of the test tool is determined.

However, such paragraph is absent any teaching with regard to a deflection detecting means provided on a base within a machining area, as called for in claim 1. For example, as illustrated in Fig. 2 of the present application, the deflection detecting means 20 includes a main body 21 fixed to a base such as a table.

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Further, such paragraph fails to disclose or suggest comparing the calculated run-out amount with a predetermined tolerance, as also called for in claim 1.

In addition, the article entitled "Axis of Rotation" relied upon by the Examiner fails to teach these features as well. More specifically, concerning Fig. 2(a), the article recites:

2.6 *error motion* - changes in position, relative to the reference coordinate axes, of the surface of a perfect workpiece with its center line coincident with the axis of rotation. Error motions are specified as to location and direction as shown in Fig. 2, sketch (a) and do not include motions due to *thermal drift*.

However, there is no disclosure concerning either a deflection detecting means provided on a base within a machining area or comparing the calculated run-out amount with predetermined tolerance, as called for in claim 1.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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